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(71) Applicant (*for all designated States except US*): THE UNIVERSITY OF LANCASTER [GB/GB]; Lancaster LA1 4YW (GB).

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(72) Inventors; and

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(75) Inventors/Applicants (*for US only*): EL-AGNAE, Omar, M., A. [LY/GB]; 3 Hodder Avenue, Grosvenor Park, Morecambe LA3 3SE (GB). ALLSOP, David [GB/GB]; Fellside, 1 Mowbray Drive, Burton in Kendal, Carnforth LA6 1NF (GB).

— *with international search report*  
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(74) Agent: ATKINSON, Peter, Birch; Marks & Clerk, Sussex House, 83-85 Mosley Street, Manchester M2 3LG (GB).

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(54) Title: PEPTIDES AND PEPTIDE DERIVATIVES FOR THE TREATMENT OF  $\alpha$ -SYNUCLEIN-RELATED DISEASES

(57) Abstract: The invention provides peptides which comprise a sequence of three to twelve contiguous amino acid residues (the "contiguous sequence") from amino acid residues 61 to 100 of naturally occurring  $\alpha$ -synuclein. The contiguous sequence is linked at its N-terminal and/or C-terminal end to one or more further amino acid residue(s) which are more hydrophilic than the amino acid residue to which that end of the sequence is linked in naturally occurring  $\alpha$ -synuclein. The invention also provides derivatives and analogues of such peptides. Peptides, derivatives or analogues of the invention are of use in prevention of  $\alpha$ -synuclein oligomerisation and/or aggregation associated with the diseases known as the synucleinopathies. As a result peptides according to the invention are susceptible of use in the preparation of medicaments, and also in methods of treatment, for prevention and/or treatment of synucleinopathies.

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## INTERNATIONAL SEARCH REPORT

GB 03/03240

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 C07K14/47

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07K G01N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, Sequence Search, WPI Data, EMBASE

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 02/04482 A (OSTRETOVA GOLTS NATALIE ;PANACEA PHARMACEUTICALS INC (US); LEBOWIT) 17 January 2002 (2002-01-17) top line page 13	1-28
X	GIASSON BENOIT I ET AL: "A hydrophobic stretch of 12 amino acid residues in the middle of alpha-synuclein is essential for filament assembly" JOURNAL OF BIOLOGICAL CHEMISTRY, vol. 276, no. 4, 26 January 2001 (2001-01-26), pages 2380-2386, XP002265314 ISSN: 0021-9258 the whole document ----- -/-	1-28

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

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Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Young, C

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	MURRAY I V J ET AL: "THE ROLE OF THE CARBOXY TRUNCATION ON alpha - SYNUCLEIN FIBRIL FORMATION." SOCIETY FOR NEUROSCIENCE ABSTRACT VIEWER AND ITINERARY PLANNER, vol. 2002, 6 November 2002 (2002-11-06), page Abstract No. 689.4, XP002265310 32nd Annual Meeting of the Society for Neuroscience;Orlando, Florida, USA; November 02-07, 2002 the whole document -----	1-28
Y	BODLES ANGELA M ET AL: "Identification of the region of non-Abeta component (NAC) of Alzheimer's disease amyloid responsible for its aggregation and toxicity" JOURNAL OF NEUROCHEMISTRY, vol. 78, no. 2, July 2001 (2001-07), pages 384-395, XP002265312 ISSN: 0022-3042 the whole document -----	1-28
Y	UVERSKY VLADIMIR N ET AL: "Biophysical properties of the synucleins and their propensities to fibrillate. Inhibition of alpha-synuclein assembly by beta- and gamma-synucleins" JOURNAL OF BIOLOGICAL CHEMISTRY, vol. 277, no. 14, 5 April 2002 (2002-04-05), pages 11970-11978, XP002265313 ISSN: 0021-9258 the whole document -----	1-28

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